

REMARKS

In response to the Office Action dated August 11, 2004, Applicants respectfully request reconsideration and withdrawal of the rejections of the claims, and the objections thereto.

In response to the Examiner's suggestions and the rejection under the second paragraph of 35 USC 112, the claims have been revised to incorporate some of the suggestions and to remove the bases for the rejection, as well as otherwise improve their form.

Claims 1, 2 and 4 were rejected under 35 USC 103, on the grounds that they were considered to be unpatentable over the Proust et al patent (US 6,216,014) in view of the Jennings patent (US 6,134,631). It is respectfully submitted, however, that the Proust and Jennings patents do not suggest the claimed subject matter to one of ordinary skill in the art, whether considered individually or in combination.

The claimed invention is directed to the manner in which security registers are allocated to multiple applications each having their own security rights. As described in the background portion of the application, in the prior art a separate security register was dedicated to each application. Consequently, in an environment having multiple applications, it was necessary to allocate an equal number of security registers. In a situation where a limited amount of memory is available, such as a smart card, it is undesirable to consume a significant portion of this memory with register allocation. As a result, the requirement for dedicated registers could operate as a limit on the number of applications that are stored in the smart card.

To overcome this limitation, the present invention provides an alternative to a dedicated security register for each application. In accordance with the invention, a limited number of registers are selectively allocated among the applications as needed. This allocation is carried out in a dynamic manner, for example as set forth in rules RG1-RG3 described on pages 7-8 of the application. By means of this approach, the number of security registers can be less than the number of applications, thereby conserving memory space.

The Proust patent pertains to multi-application smart cards, such as SIM cards for mobile communication terminals, and more particularly the ability to independently manage the security for each application. It is respectfully submitted, however, that the Proust patent does not disclose the selective allocation of security registers in a dynamic manner to handle the security rights or secrets.

With respect to the claimed recitation of security registers including rights or secrets granted under a directory, the Office Action refers to the Proust patent at column 14, lines 6-9 and 28-47. The Office Action interprets the data storage as corresponding to security registers. As can be seen in Figure 6, to which the referenced portion of the Proust patent relates, a separate storage area 61-63 is provided for each application. Thus, even if the interpretation set forth in the Office Action is adopted, the Proust patent does not disclose the claimed subject matter.

Recognizing this distinction, the Office Action relies upon the Jennings patent, at column 3, lines 29-33. This portion of the patent generally references a hierarchical memory system that stores and retrieves files within a stored directory structure. It does not, however, describe the allocation of security registers to applications, particularly the selective allocation of a register to any one of a plurality of applications at different levels of a hierarchy.

Accordingly, it is respectfully submitted that neither of the Proust nor Jennings patents discloses the claimed subject matter. Consequently, the combined teachings of the patents do not render the claims unpatentable. Reconsideration and withdrawal of the rejection is respectfully requested.

The drawings were objected to on the grounds that they include reference characters that are not mentioned in the specification. Specifically, the Office Action refers to the reference characters R1, R2 and R3 appearing in Figure 1. It is respectfully submitted, however, that these reference characters are described in the specification. For instance, at page 7, lines 15-17, the specification explains that the security registers are designated by the reference character "R", and the disclosed exemplary embodiments include 3 such registers. Thus, it is submitted to be readily apparent from the specification that the reference characters R1, R2 and R3 respectively designate the three security registers.

The drawings were also objected to as failing to include the values "n=5" and "i=4" appearing on page 5, lines 26 and 27. It is respectfully submitted, however, that these values are not reference characters for elements shown in the drawings. Rather, the parameter "n" designates the total number of levels in the n-level tree. In the disclosed examples, the number of levels is 5, which is clearly shown in the drawings. The value "i" is an index for a particular one of the levels. At page 5, line 27, the specification is referring to directories at level 4 of the hierarchy. It is respectfully submitted that these types of values do not fall into the category of reference characters that are required to be included in the figures under 37 CFR 1.84(p)(5).

The Office Action also alleges that the reference character "R" is not shown in the drawings. As discussed previously, however, this reference character is represented in the drawings, in connection with the registers R1, R2 and R3.

Reconsideration and withdrawal of the objections to the drawings is respectfully requested.

Respectfully submitted,

BURNS, DOANE, SWECKER & MATHIS, L.L.P.

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By: _____



James A. LaBarre

Registration No. 28,632

P.O. Box 1404
Alexandria, Virginia 22313-1404
(703) 836-6620